AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

Listing of Claims:

Claim 1 (Previously Presented): An image forming apparatus comprising:

a print engine forming a visible image by image data supplied thereto;

a controller receiving original image data from an external image-data source and supplying the image data to said print engine, the original image data being a multiple value image data; and

a smoothing unit provided between said controller and said print engine, said smoothing unit comprising:

a binary process unit configured to binarize the original image data;

a template matching process unit configured to determine whether or not the original image data is to be subjected to a smoothing process by comparing the original image data with a template data, and to output the original image data together with a selection signal indicative of a result of the determination of said template matching process unit;

a smoothing process unit configured to selectively apply the smoothing process to the original image data based on the determination of said template matching process unit so as to output a smoothed image data; and

a selector configured to select one of the original image data received by the controller and one of the smoothed image data based on the selection signal,

wherein said binary process unit binarizes the original image data by comparing the original image data with a threshold value data which is externally changeable,

wherein the original image data is a color image data, and the threshold value data is set on an individual color basis, and

wherein the color image data includes a set of data for each of a plurality of colors, and a threshold value with respect to black is set lower than a threshold values of other colors.

Claim 2 (Previously Presented): The image forming apparatus as claimed in claim 27 wherein said smoothing unit further comprises:

a register so that the first and second control signal sources are provided in said register.

Claim 3 (Previously Presented): The image forming apparatus as claimed in claim 27 wherein said smoothing unit further comprises:

a register so that the first control signal source is provided in the register, and the second control signal source is provided in said controller so that the second control signal is directly supplied to said selector without routing said register.

Claim 4-6 (Cancelled).

Claim 7 (Previously Presented): The image forming apparatus as claimed in claim 1, wherein the original image data includes a binary image data and the multiple value image data, and said smoothing unit further comprises:

a binary to multiple value conversion unit,

wherein said binary process unit is configured to supply the binarized original image data to said template matching process, and said binary to multiple value conversion unit is configured to convert the original image data into a multiple value original image data and to supply the multiple value original image data to said selector.

Claim 8 (Cancelled).

Claim 9 (Previously Presented): The image forming apparatus as claimed in claim 27, wherein the second control signal is effected so as to prohibit the smoothing process only when the smoothing process is permitted on an individual image basis by the first control signal.

Claim 10 (Original): The image forming apparatus as claimed in claim 1, wherein the template data of said template matching process unit is changeable externally.

Claim 11 (Previously Presented): The image forming apparatus as claimed in claim 1, wherein said smoothing process unit applies the smoothing process based on a smoothing data which is externally changeable.

Claim 12 (Previously Presented): The image forming apparatus as claimed in claim 27, wherein the original image data is a color image data, and the first control signal represents whether or not application of the smoothing process is permitted on an individual color basis.

Claim 13 (Original): The image forming apparatus as claimed in claim 12, wherein the second control signal is effected so as to prohibit the smoothing process only when the smoothing process is permitted on an individual color basis by the first control signal.

Claim 14 (Cancelled).

Claim 15 (Previously Presented): The image forming apparatus as claimed in claim 1, wherein the original image data is a color image data, and the template data is set on an individual color basis.

Claim 16 (Previously Presented): The image forming apparatus as claimed in claim 11, wherein the original image data is a color image data, and the smoothing data is set on an individual color basis.

Claim 17 (Previously Presented): The image forming apparatus as claimed in claim 16, wherein the smoothing data comprises a table information which is set on an individual color basis.

Claim 18 (Previously Presented): The image forming apparatus as claimed in claim 1, wherein said smoothing unit further comprises:

a γ-conversion unit configured to apply a γ -conversion process to the smoothed image data from the smoothing process unit, the γ-conversion process being applied in accordance with a γ-conversion data.

Claim 19 (Original): The image forming apparatus as claimed in claim 18, wherein the γ -conversion data is changeable externally.

Claim 20 (Previously Presented): The image forming apparatus as claimed in claim 19, wherein the original image data is a color image data, and the γ -conversion data is set on an individual color basis.

Claim 21 (Previously Presented): The image forming apparatus as claimed in claim 1, wherein said smoothing unit further comprises:

a register configured to store the template data used by said template matching process unit.

Claim 22 (Previously Presented): The image forming apparatus as claimed in claim 21, wherein said register is further configured to store a threshold value data and a smoothing data, the threshold value data being used to binarize the original image data by comparing the original image data with the threshold value data, the smoothing data being used to apply the smoothing process to the original image data.

Claim 23 (Previously Presented): The image forming apparatus as claimed in claim 29, wherein at least one of the first and second control signal sources is provided in said register.

Claim 24 (Previously Presented): The image forming apparatus as claimed in claim 27, wherein the second control signal source outputs the second control signal based on whether or not a gradation control process is applied to the smoothed image data.

Claim 25 (Original): The image forming apparatus as claimed in claim 24, wherein the gradation control process is one of a Dither process and a gradation area process.

Claim 26 (Previously Presented): A controller configured to receive an original image data from an external image-data source and configured to supply an image data to a print engine, said controller comprising:

a storage and processing unit configured to apply a predetermined process to the original image data and to output a processed original image data, the original image data being a multiple value image data; and

a smoothing unit configured to apply a smoothing process to the original image data output from said storage and processing unit; said smoothing unit comprising:

a binary process unit configured to binarize the original image data;

a template matching process unit configured to determine whether or not the original image data output from said storage and processing unit is to be subjected to a smoothing process by comparing the original image data with a template data, and to output the original image data together with a selection signal indicative of a result of the determination of said template matching process unit;

a smoothing process unit configured to selectively apply the smoothing process to the original image data based on the determination of said template matching process unit so as to output a smoothed image data; and

a selector configured to select one of the original image data received by the controller and one of the smoothed image data based on the selection signal,

wherein said binary process unit binarizes the original image data by comparing the original image data with a threshold value data which is externally changeable,

wherein the original image data is a color image data, and the threshold value data is set on an individual color basis, and

wherein the color image data includes a set of data for each of a plurality of colors, and a threshold value with respect to black is set lower than a threshold values of other colors.

Claim 27 (Previously Presented): An image forming apparatus according to Claim 1, wherein said smoothing unit further comprises:

a first control signal source configured to output a first control signal representing whether or not application of the smoothing process is permitted on an individual image basis; and

a second control signal source configured to ouput a second control signal representing whether or not application of the smoothing process is permitted on an individual pixel basis.

Claim 28 (Previously Presented): The image forming apparatus as claimed in claim 26, wherein said smoothing unit further comprises:

a register configured to store the template data used by said template matching process unit.

Claim 29 (Previously Presented): The image forming apparatus as claimed in claim 28, wherein said register is further configured to store a threshold value data and a smoothing data, the threshold value data being used to binarize the original image data by comparing the original image data with the threshold value data, the smoothing data being used to apply the smoothing process to the original image data.